REMARKS

The present application was filed on January 20, 2000 with claims 1 through 24. Claims 1 through 24 are presently pending in the above-identified patent application. Claims 1, 8, 13, and 20 are proposed to be amended herein.

5   In the Office Action, the Examiner objected to the Abstract due to indicated informalities and rejected claims 1 and 13 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner rejected claims 1, 3, 8, 9, 12, 13, 15, 20, 21, and 24 under 35 U.S.C. § 102(e) as being anticipated by Kunimoto (United States Patent Number 6,396,808) and

10   rejected claims 1-4, 6-9, 12-16, 18-21, and 24 under 35 U.S.C. §103(a) as being unpatentable over McAllister et al. (United States Patent Number 6,215,765) in view of Krasner (United States Patent Number 6,104,338). The Examiner indicated that claims 5, 10, 11, 17, 22, and 23 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

15   The present invention is directed to a method and apparatus for alleviating congestion and overload in a distributed call-processing system interconnected through a packet based network, such as an IP or an ATM network. The illustrative IP network includes a plurality of end terminals (ETs) and distributed call processors (CPs). When an end terminal (ET) wants to place a call, the end terminal (ET) send a call set up message to a call processor (CP). According to an aspect of the

20   invention, the call processor will determine whether to process the request or to forward the request to another call processor. Generally, the call processor will declare an overload condition if sufficient resources (such as processing or memory resources) are not available to process a given call. If a call processor determines that it is too congested to process a call, the call processor enters an overload condition, selects an alternate call processor and forwards the request to the alternate

25   call processor.

Formal Objections

The Abstract was objected to for having a length greater than 150 words and for containing the term "such as." Claims 1 and 13 were objected to because there is insufficient antecedent basis for the limitation "said congested call processor."

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The Abstract has been amended to address the Examiner's objections and claims 1 and 13 have been amended to provide proper antecedent basis for the cited limitation. Applicants respectfully request that the objections to the Abstract and the cited claims be withdrawn.

Independent Claims 1, 8, 13 and 20

5   Independent claims 1, 8, 13, and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kunimoto and claims 1, 8, 13, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over McAllister et al. in view of Krasner.

Regarding claims 1 and 8, the Examiner asserts that Kunimoto teaches that "the system identifies an alternate call processor to process the call set up request using a list of call

10   processors if sufficient resources do not exist" (col. 23, line 66, to col. 24, line 6). Regarding claims 8 and 20, the Examiner asserts that Kunimoto teaches "setting a flag associated with the congested call processor indicating that the congested call processor is congested (fig. 24 step 510: overload state, notice from the processor, col. 23 line 66 – col. 24 line 1)."

Applicants note that Kunimoto teaches that a call processor has a *designated* back-up

15   processor (ATM switching system 2B; col. 23, line 66, to col. 24, line 6). The present invention is directed to a *distributed* method for identifying the "back-up" call processor, wherein one or more call processors maintain a list that contains the congestion status of one or more of the call processors. The list is utilized by a call processor to identify one or more back-up call processors. Independent claims 1 and 13 have been amended to require identifying an alternate call processor to

20   process said call set up request using a list of call processors if sufficient resources do not exist, "wherein said list of call processors includes a *congestion status* of one or more of said call processors." Kunimoto does not disclose or suggest a list of call processors that includes a *congestion status* of one or more call processors.

Independent claims 8 and 20 have also been amended to require setting a flag

25   associated with said congested call processor indicating that said congested call processor is congested by *utilizing said received call set up request*. Thus, the flag is set in the *call processor that receives the forwarded call set up request* that indicates congestion. Kunimoto does not disclose or suggest setting a flag associated with a congested call processor indicating that the congested call processor is congested by utilizing a received call set up request.

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Thus, Kunimoto does not disclose or suggest a list of call processors that includes a congestion status of one or more of said call processors, as required by independent claims 1 and 13, as amended, and does not disclose or suggest setting a flag associated with said congested call processor indicating that said congested call processor is congested by utilizing said received call set

5   up request, as required by independent claims 8 and 20, as amended.

Regarding claims 1, 8, 13, and 20, the Examiner also asserts that McAllister discloses that "the system identifies an alternate call processor to process the call set up request using a list of call processors if sufficient resources do not exist (col. 3, lines 25-27)."

Applicants note that McAllister is directed to rerouting a call due to congestion or

10   physical failure. See, Abstract. McAllister defines congestion in regard to network links, not call processors. McAllister teaches that "congestion may occur on a network link if many incoming streams of traffic all terminate on the same outbound link, or the outbound link may (be) busy or down due to failure." Col. 1, lines 10-12. Independent claims 1 and 13 require "whereby said forwarded call set up request indicates to said alternate call processor that said congested call

15   processor is congested" and independent claims 8 and 20 require "setting a flag associated with said congested call processor."

As noted above, McAllister clearly teaches that "congestion may occur *on a network link* if many incoming streams of traffic all terminate on the same outbound link." Applicants maintain that McAllister is addressing the congestion on a network link and not a call processor. In

20   particular, if the bandwidth of "many incoming streams of traffic" exceeds the bandwidth of the "same outbound link," then the outbound link will be congested. The call processor, however, will *not* be congested if it has enough processing power to handle the bandwidth of the incoming streams of traffic. Thus, network link congestion is *not* the same as call processor congestion.

In addition, since McAllister does not address congestion of call processors,

25   McAllister does not disclose or suggest a list of call processors that includes a *congestion status* of one or more of said call processors or setting a flag associated with said congested call processor indicating that said congested call processor is congested.

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Thus, McAllister does not disclose or suggest a list of call processors that includes a congestion status of one or more of said call processors, as required by independent claims 1 and 13, as amended, and does not disclose or suggest setting a flag associated with said congested call processor indicating that said congested call processor is congested, as required by independent

5   claims 8 and 20, as amended.

Additional Cited References

Krasner was also cited by the Examiner for its disclosure of "the call set up request to the identified alternate call processor is sent in response to the call processor being congested." Applicants note that Krasner is directed to methods and apparatuses for operating a satellite

10   positioning system receiver so that the position of the receiver can be tracked over time (col. 2, lines 44-46). Krasner, however, does not disclose or suggest a list of call processors that includes a congestion status of one or more of said call processors or setting a flag associated with a congested call processor indicating that the congested call processor is congested.

Thus, Krasner does not disclose or suggest a list of call processors that includes a

15   congestion status of one or more of said call processors, as required by independent claims 1 and 13, as amended, and does not disclose or suggest setting a flag associated with said congested call processor indicating that said congested call processor is congested, as required by independent claims 8 and 20, as amended.

Dependent Claims 2-7, 9-12, 14-19 and 21-24

20   Dependent claims 3, 9, 12, 15, 21, and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kunimoto and claims 2-4, 6-7, 9, 12, 14-16, 18-19, 21, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over McAllister et al. in view of Krasner.

Claims 2-7, 9-12, 14-19, and 21-24 are dependent on claims 1, 8, 13, and 20, respectively, and are therefore patentably distinguished over Kunimoto, McAllister et al. and

25   Krasner (alone or in any combination) because of their dependency from amended independent claims 1, 8, 13, and 20 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

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Respectfully submitted,

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